ABSTRACT

Antenna is a matching device between intrinsic impedance of propagation media and characteristic impedance of radio transmission line (Soetamso, 2004). From the definition, writer will try to make a antenna which have width band and easy to make it.

Antenna is designed and realiazed that Antena Dwitunggal One Wire Strip Chebyshev 250 Ohm Used Ferit and SMA Connector 50 Ohm. The Antenna used a wire which parallel with ground, between strip wire and ground there dielectric. Matching chebyshev method is used as mathing intrinsic impedance of propagation spaces with characteristic impedance of radio. However, to match antenna impedance with transmission line used ferit.

This antenna is designed has a width band so it can pass many frequency and economizing the feeder. Type of services which can work between frequency 400 MHz to 1000 MHz are flexi (800 MHz), GSM (900 MHz) and ceria (450 MHz).

From the measuring, generally, it is gotten that the design of antenna is near to specification design which have $VSWR \leq 1.563$ so that bandwidth of antenna is 600 MHz and impedance of antenna which is near to impedance terminal 50 Ohm is $60 + j25 \Omega$ at 1000 MHz. The shape of polaradiatian is unidirectional, the shape of polarisasi near to linier (ellips), gain 7.007 dBi at 400 MHz, 11.943 dBi at 700 MHz, 12.075 at 1000 MHz.